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Portsmouth CITY COUNCIL

Agenda item:

Title of meeting:	Health Overview and Scrutiny Panel
Subject:	Report on 2011-12 five-year olds dental epidemiology survey in Portsmouth
Date of meeting:	17 September 2013
Report by:	Dr Jeyanthi John Consultant in dental public health (Wessex)
Wards affected:	All

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1. Requested by Health Overview and Scrutiny Panel

2. Purpose: To provide the Panel with:

An update on the position of the dental health of five-year olds in Portsmouth

3. The report attached has been produced by Public Health England in response to the release of the 2011-12 five-year olds dental epidemiology survey in Portsmouth

Public Health England

Report on 2011-12 five-year olds dental epidemiology survey in Portsmouth -

Executive Summary

This paper reports on the dental epidemiology survey of five-year-olds in Portsmouth. Overall the data indicated that 25% of Portsmouth children had experience of dental decay and 21% had dental decay which had not been treated. The levels of decay in Portsmouth children is not statistically significantly different from the previous survey and tooth decay remains a common disease in young children, with risks for pain, sepsis and having a general anaesthetic to remove teeth. Disappointingly, the proportion of children who participated in the survey has fallen which may affect the accuracy of the figures. There is a process on-going across Portsmouth schools to obtain “blanket consent” at school entry to obtain permission for dental examinations to be carried out throughout school life. It is anticipated that this will improve participation rates for future dental surveys and therefore improve the quality of data available.

Public Health England

1. Background and context

1.1 Dental epidemiology surveys of children are carried out in Portsmouth as part of a national programme of surveys coordinated by Public Health England. Children are examined by dentists from the local Community Dental Services who are calibrated to a common standard and trained to use a standard protocol. This facilitates comparisons of the oral health of Portsmouth children nationally with other areas. Locally, the surveys inform the commissioning of dental services by the Wessex Area Team as well as the Local Authority-commissioned oral health improvement programmes.

1.2 Participation in the national surveys has been low since the introduction of positive consent in 2006. Up to 2006, good response rates of 75% and above were achieved nationally. From the 2007-8 survey, children, who do not return a signed consent form, giving permission for them to participate in the survey, cannot be examined. Previous reports (NWPHO, 2009) suggest that parents of children living in areas of higher deprivation are less likely to return consent forms. Additionally, there is more absenteeism in more deprived areas, increasing the likelihood that these children are not at school on the days of the examinations. A combination of these factors affects participation rates across all children, but is particularly poor for children from more deprived backgrounds who are more likely to have experience of dental decay. The quality of data is dependent on the participation rate – if participation is low (less than about 75%), the data is less useful as a reflection of the state of oral health in that area.

1.3 The national data from the 2011-12 survey of five year olds was released by Public Health England on 20 September. Overall the participation rate for the five-year-old surveys across England fell from 75% in 2005-6 to 67% in 2007-8, with a further smaller drop to 65% in 2011-12. In the 2011-12 survey, only a small proportion of parents (5%) actively stated that they did not want their child to participate and absenteeism accounted for a further 5% of non-participation. Non- response to the request (about a quarter of the children approached) was the most common reason for children not participating in the survey.

Public Health England

2. Results for Portsmouth

2.1 The proportion of children in Portsmouth participating in the survey dropped from 70% in 2007-8 (67% for England) to 61% in 2011-12 (65% for England). As a comparison, the proportion of children examined in 2005-6, using negative consent or opt-out process, was 87% (75% for England). The data has to be viewed in the context of the proportion of children included in the survey.

2.2 Participation rates for the survey varied widely across schools ranging from 24% in Cottage Grove Primary School to 89% in Langstone School (Chart 1). Highbury Primary School was not surveyed. The participation rates in some of the schools were still low, even with two visits from the dental team to try and maximise participation (schools shown as red bars). For example only 42% of children in Flying Bull Primary School and 49% in Somers Park Primary School were examined even with two visits. The average consent rates for the five schools in the most deprived neighbourhoods is 42% compared to 70% for the five schools in the least deprived neighbourhoods. There demonstrates the relationship between response rates in relation to deprivation.

Chart 1

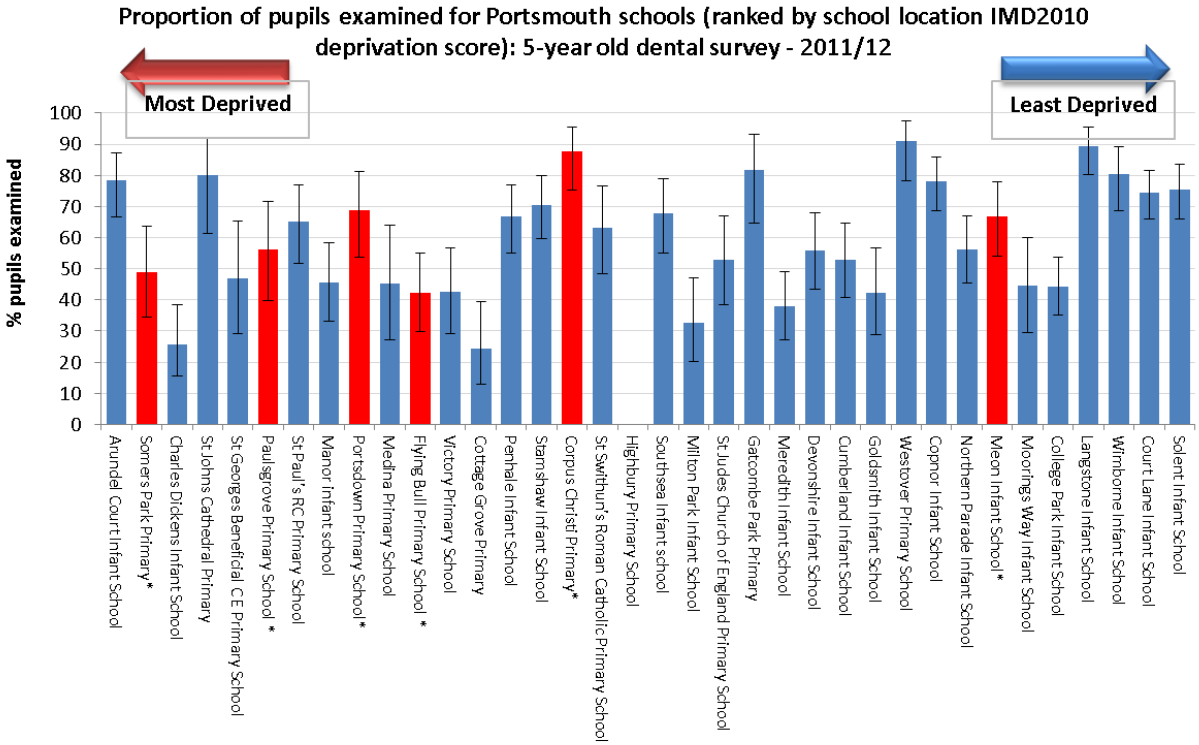
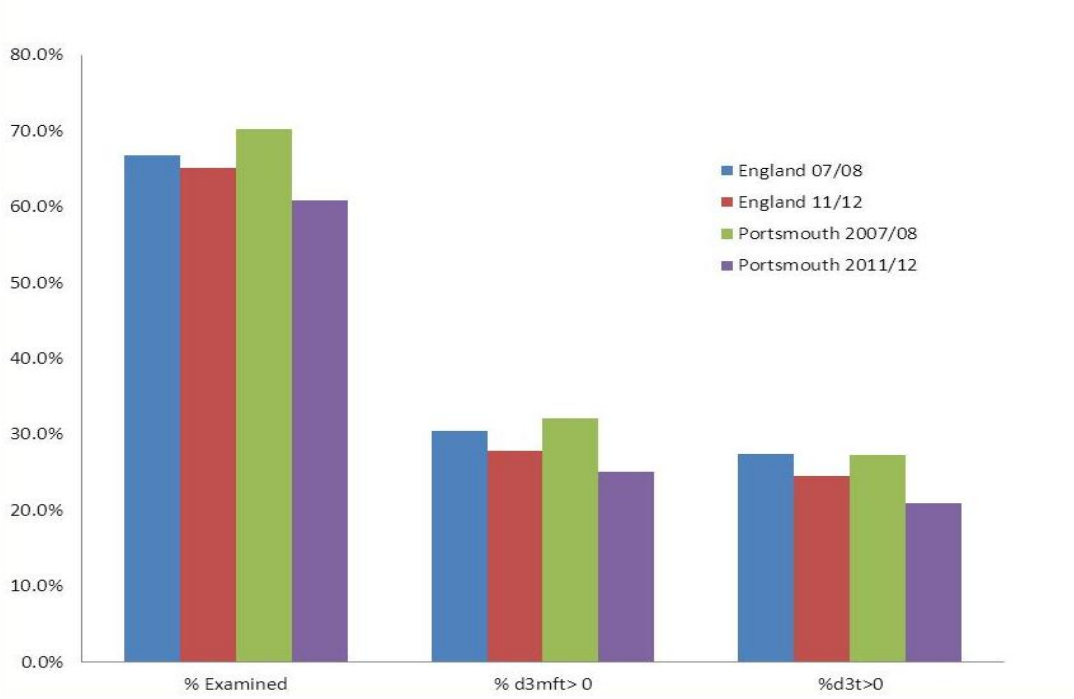


Chart 2 below shows the proportion of children examined in Portsmouth, 70% in 2007-8 to 61% in 2011-12 (67% in 2005-6 and 65% in 2011-12 for England). The chart also shows the proportion of children with experience of dental decay in Portsmouth (i.e. with decayed, filled or missing teeth) in 2011-12 was 25% (32% in 2007-8). The proportion of children with untreated dental decay was 21% in 2011-12 (27% in 2007-8). England data is included as a comparison and also shows a decline, although the difference is smaller than in Portsmouth.

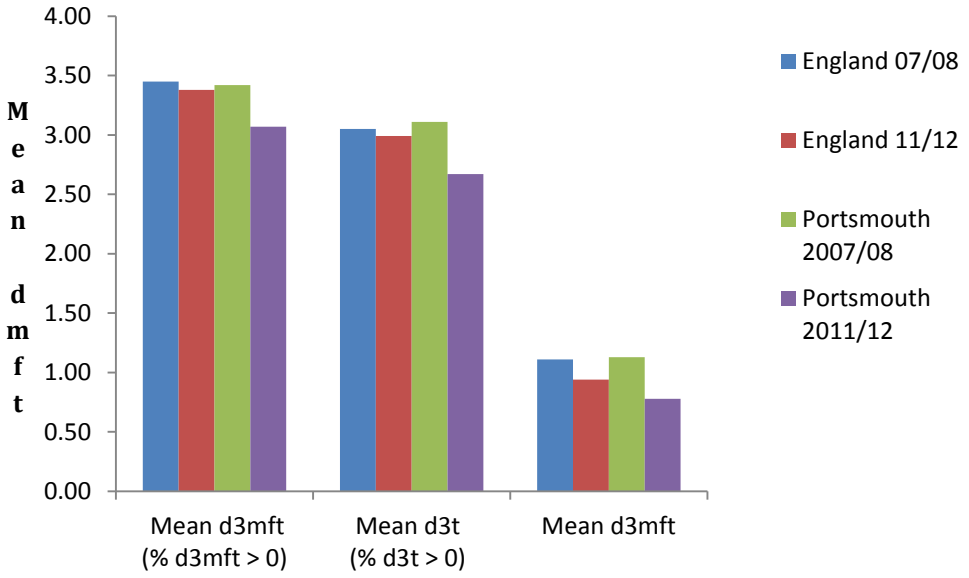
Chart 2: Proportion of children examined, with dental decay experience (%d3mft>0) and with untreated decay (%dt>0)



2.3 Chart 3 below shows the differences of mean number of teeth with experience of dental decay. The data indicates that overall Portsmouth children have an average of 0.78 teeth affected by dental decay (1.13 in 2007-8). If the children without experience of dental decay are excluded, the mean number of teeth affected by dental decay in the affected 25% of children is 3.11 (3.42 in 2007-8). The 21% of children with untreated dental decay have, on average, 2.67 affected teeth (3.11 in 2007-8) which may need treatment. England data indicates that there is a drop in these indicators but the decline is smaller than for Portsmouth.

Public Health England

Chart 3: Mean number of teeth with decay experience



3. Summary of Portsmouth data

3.1 Nationally, data indicated that dental decay rates across England have dropped between 2007-8 and 2011-12. It is postulated that this may indicate a true improvement due to increased use of fluoride toothpaste and fluoride varnish. However there is concern regarding the inequalities still present and the 28% of children nationally who still have dental decay. There were also wide variations in the state of dental health with areas of higher deprivation generally experiencing higher levels of dental decay.

3.2 Dental decay rates in Portsmouth appear to have fallen between 2007-8 and 2011-12. However, as there is a large decline in the proportion of children examined, this may not be an accurate reflection of the state of dental health in Portsmouth children.

3.3 About a quarter of five-year-old children examined had experience of dental decay by the age of five years and these children had, on average, three teeth affected by dental decay. Many of these children had untreated decay. These children are likely to be from more deprived backgrounds indicating the dental inequality which exists at this young age.

3.4 To improve dental health in young children, the focus needs to be on preventing dental decay. Once teeth are decayed, it is likely that other teeth will be involved. In young children, the option is often a general anaesthetic for extraction of the affected teeth. It is also known that once there is dental decay in primary teeth, it is likely that the child will go on to experience dental decay in their permanent teeth. If permanent teeth cannot be repaired (filled), they will have to be extracted resulting in permanent loss of these teeth.

3.5 As shown by the data, dental decay affects a significant proportion of these young children in Portsmouth. Generally, these children come from more deprived backgrounds adding to the health inequality which exists in the City. There is a need to address this inequality if the dental health for Portsmouth's children overall is to be improved.

3.6 Portsmouth has a strong programme to raise awareness and promote better dental health via supervised tooth brushing and individual targeted fluoride varnish schemes. These are continuing to prevent tooth decay and need to be sustained and built upon.

4. Future plans for dental epidemiology programme

4.1 The next national survey of five-year-old children will be in 2014-15. There is currently an on-going process across Portsmouth to get blanket consent at school-entry for permission to examine children throughout their school life. An opt-in approach is being used as required. As the forms requesting permission for dental examinations is going out with other forms required for school-entry, it is anticipated that there will be a good response rate. All head teachers received a letter from Portsmouth's Director of Public Health to advise them of this process. Permission will still be sought at the time of each dental examination, but an opt-out process can be used subsequently, which means that children can still be examined even if a signed consent form is not received at that stage.

4.2 This should improve participation rates across Portsmouth schools for the 2014-15 survey and give a better indication of the state of dental health of the City's children. This data can then be used to make decisions about appropriate interventions to achieve improvements to dental health at population level in Portsmouth.

4.3 There will be data available next year from the national survey of three-year-olds which has just been completed. Data will be available on Portsmouth's children which can be used to supplement the available information.

4.4 A national survey of children in special schools is planned for the 2013-14 academic year. This will be the first time that children in special care schools are being examined nationally and will provide important information regarding their dental health. The survey will help identify any inequalities with regard to the state of dental health and need for dental care in this very vulnerable group of children.

5. Improving dental health in Portsmouth

5.1 The dental health improvement programme in Portsmouth is on-going. The Portsmouth Dental Academy and Solent NHS Trust provide a targeted programme of supervised tooth brushing, topical fluoride varnish applications and healthy eating for young children.

5.2 The programme is reviewed regularly to take account of best available evidence and best practice from other areas.

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